

Patent claims

1. A composite comprising polyacetal and at least one thermoplastic polyester elastomer formed by a polyacetal molding which has been partially or completely coated with the thermoplastic polyester elastomer or onto which one or more moldings composed of the thermoplastic polyester elastomer have been directly molded, wherein the polyacetal and the thermoplastic polyester elastomer have been bonded adhesively or cohesively to one another via injection of the thermoplastic polyester elastomer onto the polyacetal molding, and wherein the tensile bond strength between the polyacetal and the thermoplastic polyester elastomer is at least 0.5 N/mm².
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- 15 2. The composite as claimed in claim 1, wherein the tensile bond strength between the polyacetal and the thermoplastic polyester elastomer is at least 1.0 N/mm².
- 20 3. The composite as claimed in claim 1, wherein the polyacetal used comprises a polyoxymethylene copolymer.
- 25 4. The composite as claimed in claim 1, wherein the polyacetal molding and/or the polyester elastomer molding has additives which are selected from the group consisting of stabilizers, nucleating agents, impact modifiers, mold-release agents, lubricants, fillers, reinforcing materials, pigments, carbon black, light stabilizers, flame retardants, antistatic agents, plasticizers, and optical brighteners.
- 30 5. The composite as claimed in claim 1, wherein the hardness of the thermoplastic polyester elastomer is in the range from Shore A 65 to Shore D 75.
- 35 6. The composite as claimed in claim 1, wherein the thermoplastic polyester elastomer used comprises a thermoplastic polyetherester elastomer.

7. The composite as claimed in claim 6, wherein the thermoplastic polyetherester elastomer is a polyetherester that has polybutylene terephthalate as stiff segment and polytetramethylene oxide as flexible segment.
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8. The composite as claimed in claim 1, wherein the polyacetal molding has been completely or partially coated with thermoplastic polyester elastomer.
- 10 9. The composite as claimed in claim 1, wherein at least one other molding composed of thermoplastic polyester elastomer has been molded onto the polyacetal molding.
10. A process for producing the composite as claimed in claim 1, which
15 comprises using multicomponent injection molding processes to mold at least one polyacetal molding and at least one other molding composed of thermoplastic polyester elastomer onto one another, the polyester elastomer being injected onto the polyacetal molding.
- 20 11. The process as claimed in claim 10, wherein, prior to the molding-on of the thermoplastic polyester elastomer, the polyacetal molding is preheated to a temperature in the range from 80°C to just below its melting point, and the melt temperature of the thermoplastic polyester elastomer during the process of molding onto the polyacetal molding is from 200 to 300°C, and the mold has been temperature-controlled to a temperature in the range from 20 to
25 140°C.
12. The process as claimed in claim 11, wherein, prior to the molding-on
30 of the thermoplastic polyamide elastomer, the polyacetal molding is preheated to a temperature in the range from 100 to 160°C, and the melt temperature of the thermoplastic polyester elastomer during the process of molding onto the polyacetal molding is from 220 to 260°C, and the mold has been temperature-controlled to a temperature in the range from 30 to 80°C.
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13. The use of the composite as claimed in claim 1 as connector, as functional component with integrated sealing properties and/or with

integrated damping properties, or else as non-slip and easy-grip element.